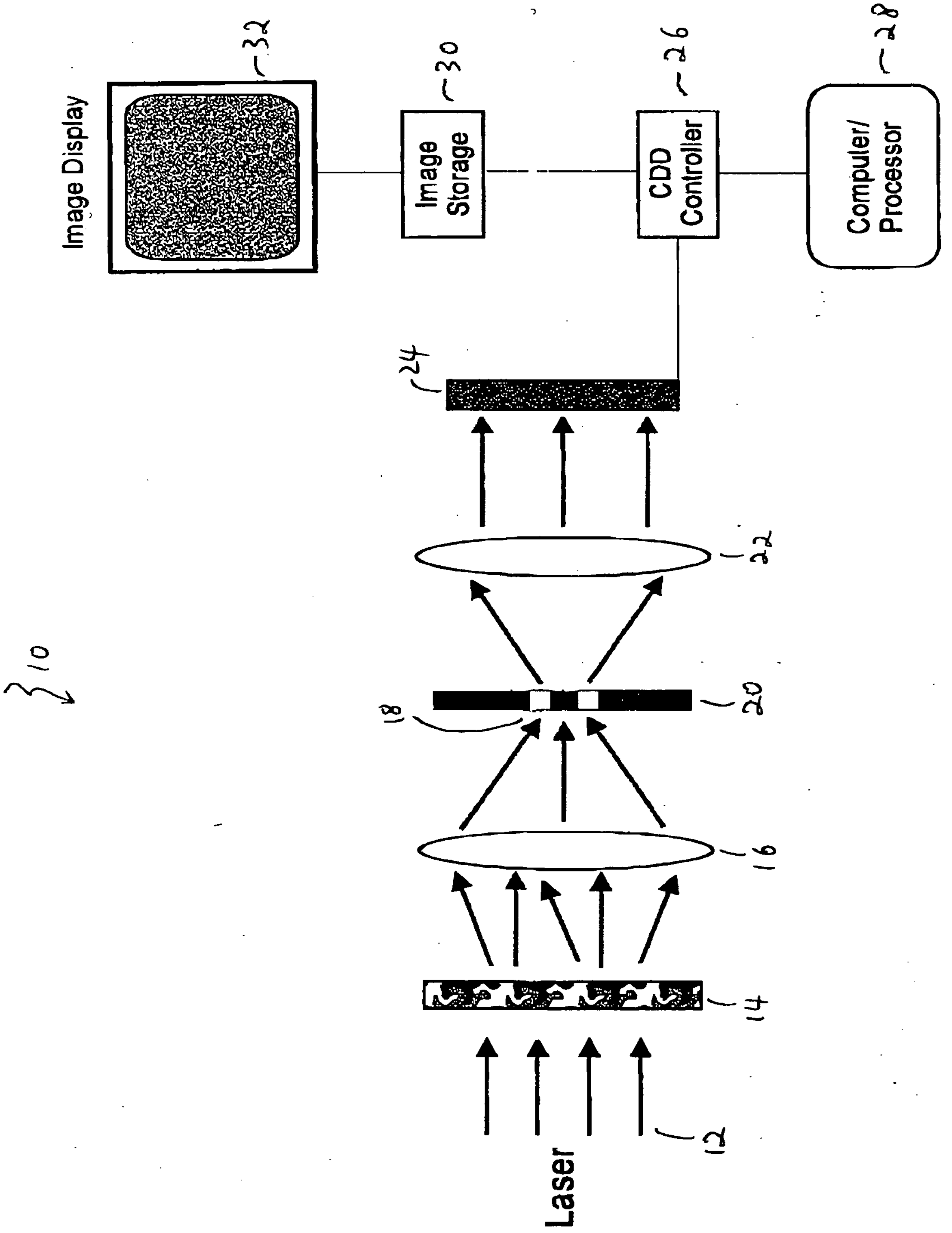


Image Display
Image Storage
CDD Controller
Computer/ Processor
Laser

Figure 1

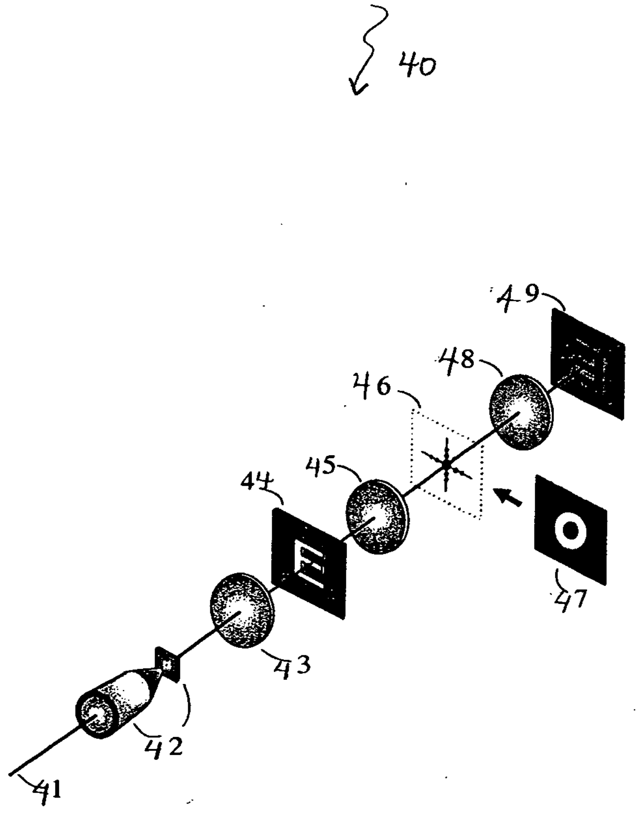


Figure 2

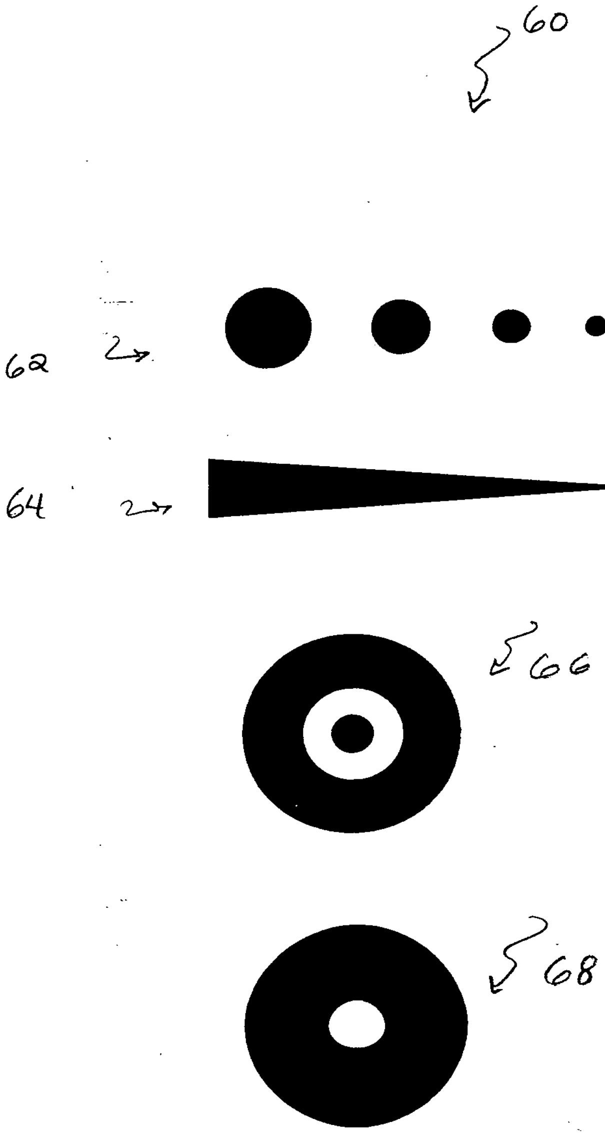
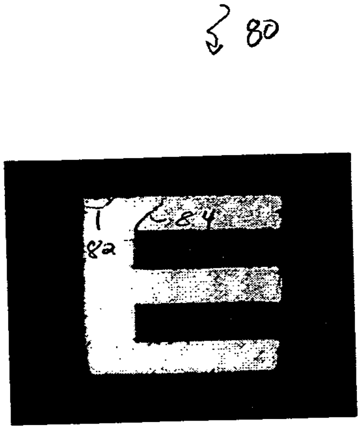
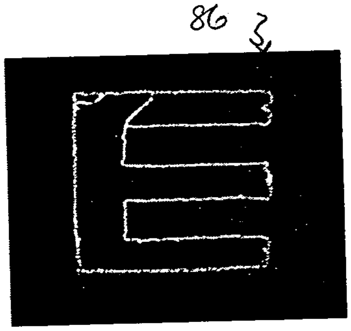


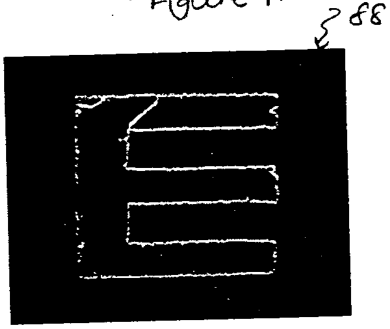
Figure 3



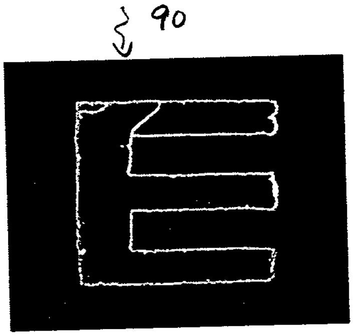
Original image
Figure 4A



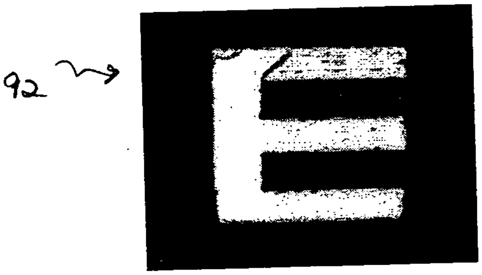
Processed by filter, 62
Figure 4B



Processed by filter 64
Figure 4C

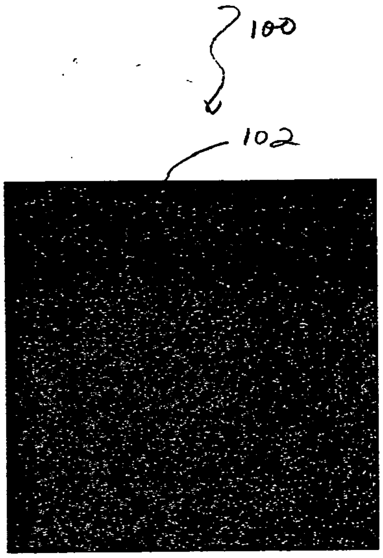


Processed by filter 66
Figure 4D



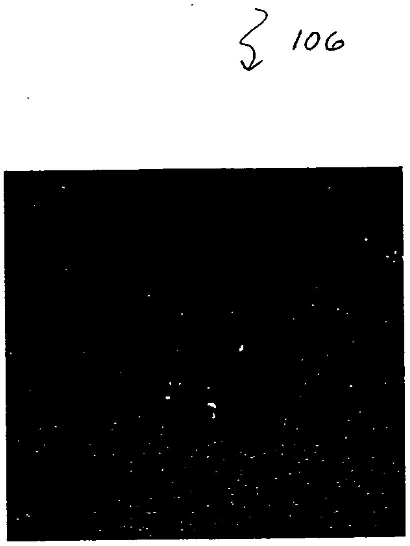
Processed by filter 68

Figure 4E



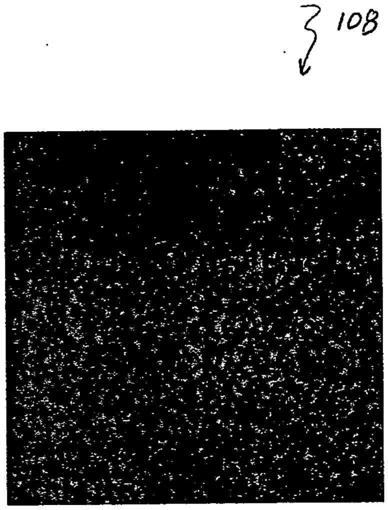
Original

Figure 5A



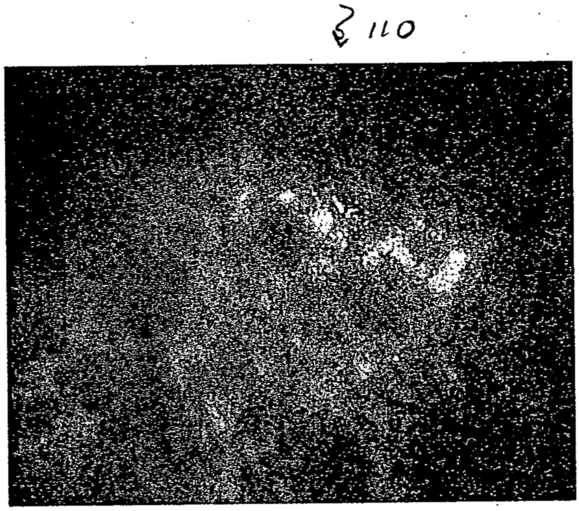
Processed by filter 66

Figure 5B



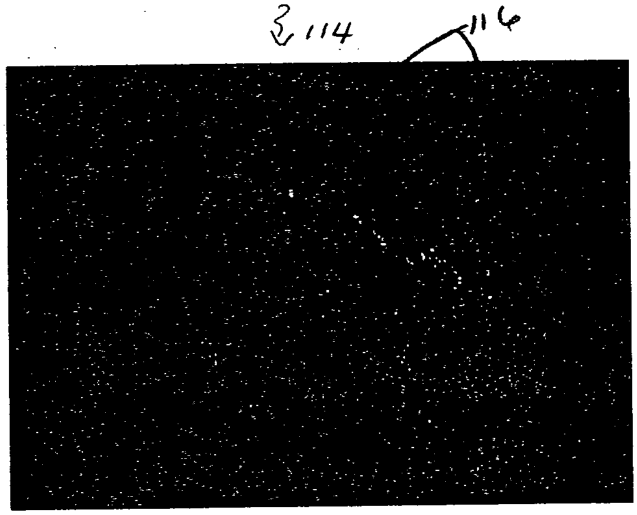
Processed by filter 68

Figure 5C



Original

Figure 6A



Processed by filter 66

Figure 6B

Docket No.: 301962.3001-101
Inventors: D.V.G.L.N. Rao and Pengfei Wu
Title: Optical Fourier Systems...Processing

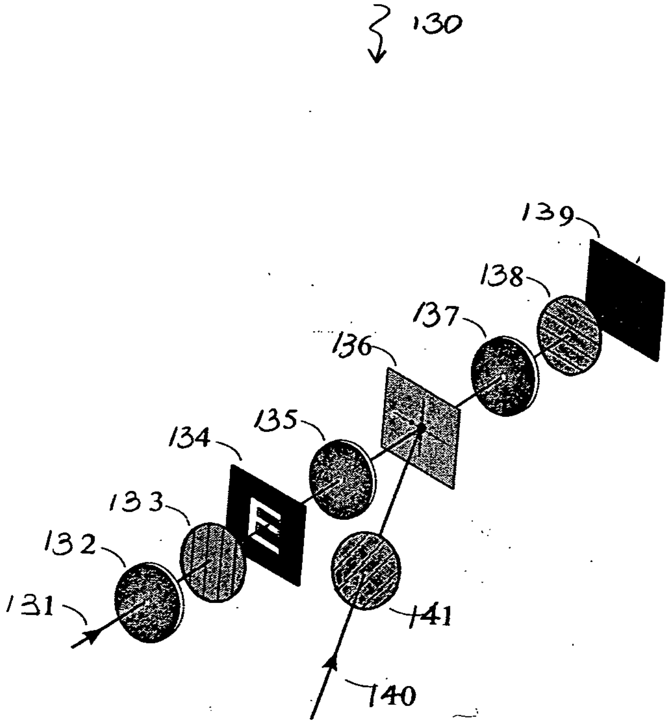
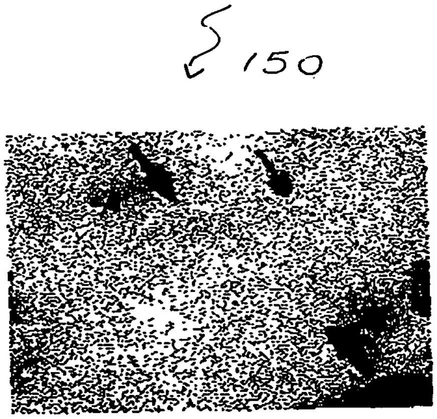
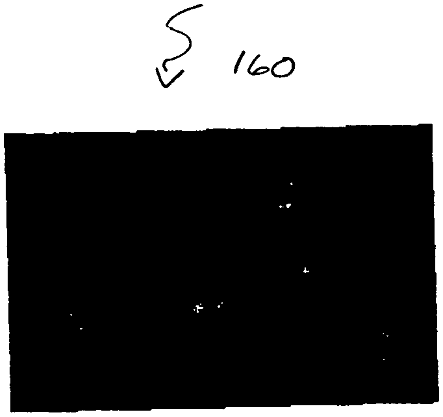


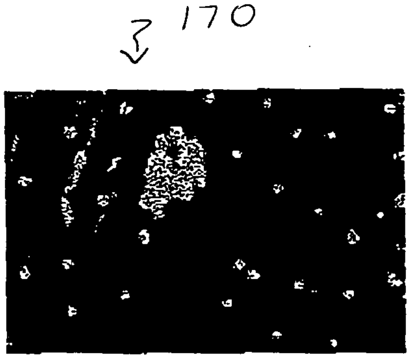
Figure 7



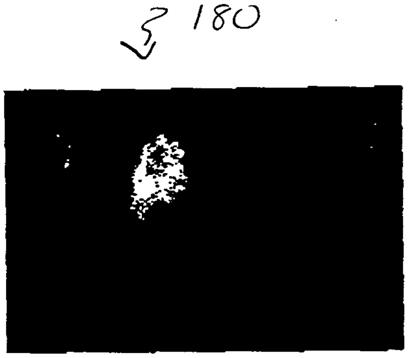
8A



8B



9A



9B

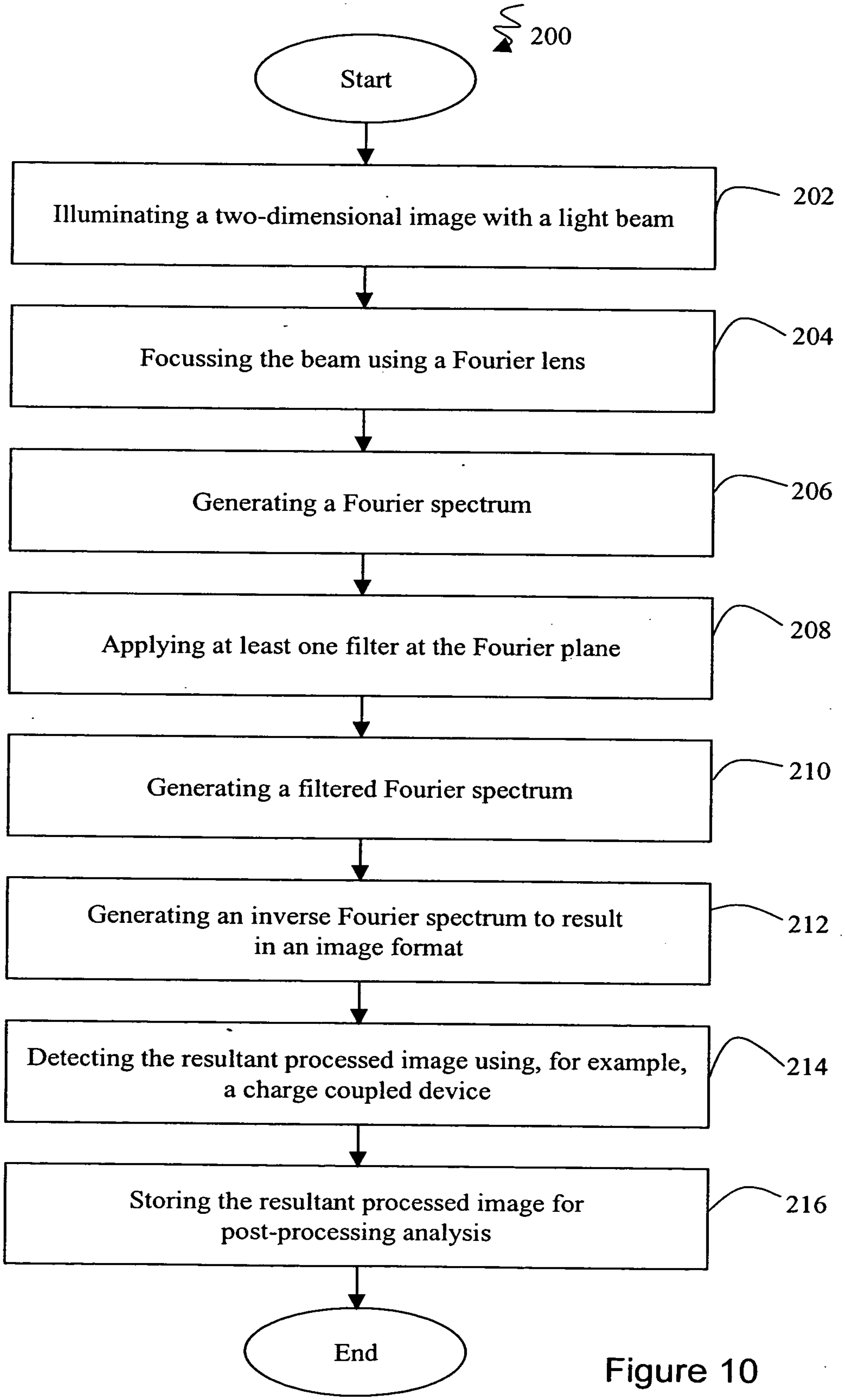

200
Start
Illuminating a two-dimensional image with a light beam
202
Focussing the beam using a Fourier lens
204
Generating a Fourier spectrum
206
Applying at least one filter at the Fourier plane
208
Generating a filtered Fourier spectrum
210
Generating an inverse Fourier spectrum to result in an image format
212
Detecting the resultant processed image using, for example, a charge coupled device
214
Storing the resultant processed image for post-processing analysis
216
End

Figure 10